

**ON-CHIP TRANSFORMER BALUN****ABSTRACT OF THE DISCLOSURE**

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A transformer balun is obtained that is symmetrical in structure, provides high current, or high voltage, amplification and has high coupling coefficients while maintaining minimal overall size. The balun structure includes primary and secondary metal windings at separate layer interfaces. The primary and secondary metal windings are symmetrical and can have any number of turns, which is only limited by integrated circuit area and capacitance. Accordingly, the primary and secondary windings may be on as many layers as needed. Further, the primary and/or secondary may include a center tap ground, which enables the winding to be used as a differential port.

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